



Tocharian Warriors of The Steppes:



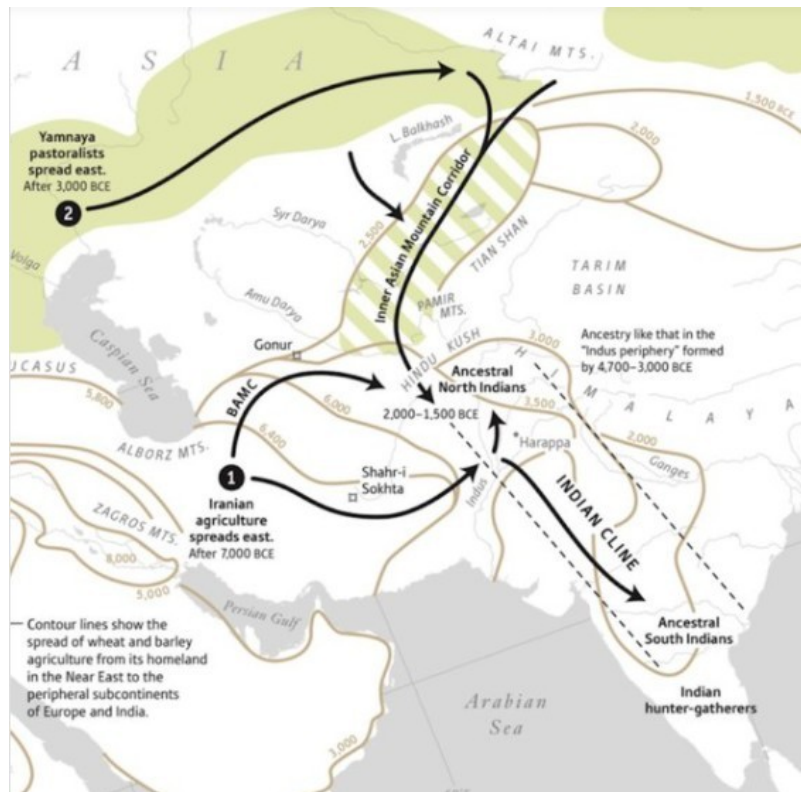
Dr. Johnson once remarked with reference to the concessions to Parliament made by Charles I. " If," he said, " these had been related nakedly, without any detail of the circumstances which generally led to them, they would not have been believed."

Keeping This in Mind, I have chosen to Gather together the Fruit of Countless Scholars and attempt to place them in Sequence, to trace the Origins of the Khattars in an Orderly manner. Some back and Forth Narrative will be occasioned, for which my apologies with a request for patient perusal.

To Recall The Closing of Tocharian-Yueczi-Khattar Horse Tribes Volume 1.

"There is evidence of Large-Scale Migration of Steppe Tribes towards the more conducive Environment of the Forested Areas of Europe. Large Tribal Groups accompanied with huge flocks of Domestic Animals and spearheaded by Battle-Axe Wielding Warriors, enjoyed relative superiority over the indigenous European Populations regarding mobile food supply and Battle tactics. This led to dominance of the Newcomers in relations to Languages and Culture.

Other, related tribes either remained in place or moved towards the East as far as the [Altai Mountains](#), sharing the area with other tribes, speaking different tongues and having different Cultures. This showed that the Speakers of [Indo-European Languages](#) had evolved a highly advanced Nomadic Mode of Existence."



Early Eastwards Migration Route of Proto-Indo-European Tribes:

There is a need to clarify some Terms and Concepts that we will be dealing with.

Satem: Languages of the [Indo-European Family](#) are classified as either Centum Languages or Satem Languages according to how the [dorsal consonants](#) (sounds of "K" and "G" type) of the reconstructed [Proto-Indo-European Language](#) (PIE) developed. An example of the different developments is provided by the words for "hundred" found in the early [attested Indo-European Languages](#) (which is where the two branches get their names). In Centum Languages, they typically began with a /k/ sound ([Latin](#)

Centum was pronounced with initial /k/, but in Satem Languages, they often began with /s/ (the example Satem comes from the [Avestan Language](#) of [Zoroastrian](#) Scripture).¹

Yamnaya: The Yamnaya Culture, also known as the Yamnaya Horizon, Yamna Culture, Pit Grave Culture or Ochre Grave Culture, was a late Copper Age to early Bronze Age Archaeological Culture of the Region between the Southern Bug, Dniester, and Ural rivers, dating to 3300–2600 BCE.²

Map of the [Yamnaya Culture](#), based on map printed at page 651 in [Encyclopedia of Indo-European Culture](#), which was edited by [J. P. Mallory](#) and [Douglas Q. Adams](#), and published by [Taylor & Francis](#) in 1997.³



There is an anomaly in that two well defined Groups of People do not fit into the East and West Indo-European Boxes. One, the Germanic Language speakers founded by r1a/ Satem People but of very mixed later heritage. The other, and the one that particularly concerns us, is a Western Group who, differed from all the other Groups by Migrating Eastwards into the Eurasian Steppes Heartland rather than the European Forest Lands, this Group, which evolved into the Tocharian Branch of the Indo-Europeans, appeared early in the Yamnaya Horizon. The origins and antecedents of this particular Group have perplexed Scientists and resulted in many conflicting theories and Counter Arguments regarding their Origins. Recent DNA analysis apparently resolved some of the mystery, but further investigations have led to revival of controversy.

The Yamnaya Horizon took place about 3000 years ago and came about with a distinct expansion phase in Human Prehistory. Proto-Languages began to diversify and soon became mutually unintelligible. The Anatolian Branch is excluded from this process as they had already Migrated towards the South from their original homeland in the Pontic-Caspian Steppe.

Why the Centum-Speaking Tocharians headed towards the East and not the West can be successfully answered by the analysis that, DNA evidence shows that the Indo-Europeans in 3000 BCE were divided into two main Groups. The Centum Dialect speaking, R1b Y Chromosome bearing, Steppe

1 https://en.wikipedia.org/wiki/Centum_and_satem_Languages

2 https://en.wikipedia.org/wiki/Yamnaya_Culture#/media/File:Yamnaya_Culture.jpg

3 By Krakkos - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=112167063>

Inhabitants in the South and in the North, amid the Forests and Forest-Steppe the R1a Y Chromosome bearing, Satem Dialect Speakers.

This resulted in displacement of the Centum-Speaking Tocharians, forcing them to head Eastwards instead of towards the West.

The Y-DNA haplogroup – R1b, bearers were the Western Centum Speaking Groups of the Indo-Europeans and evolved into the Celtic, Italic, Venetic, Illyrian, Ligurian, Vindelician/ Liburnian and Raetic branches.

The Y-DNA haplogroup – R1a, the Eastern or Satem Indo-European Languages speakers evolved into the Indo-Iranian/ Indo-Aryan, Baltic, and Slavic groups.

Thus, the Tocharians appear to have a very strange history that confirms their West Indo-European origins despite being the most Eastern of Indo-Europeans.

The Early Tocharian Language, however, reveals elements that belong to both the Eastern Satem – R1a and Western Centum – R1b influences.

This might possibly be explained by theorizing that they were a hybrid Group consisting of refugees belonging to different Indo-European groups, banding together for safety while migrating through West Indo-European, South Indo-European, and East Indo-European groups.

At its core Tocharian is a Centum Language – just like Indo-European Languages in the West – despite its Far Eastern setting. Another likelihood for the hybridization process is that a specific group took over other groups, and they all adopted the most dominant Language variant whilst also picking up influences from later arrivals. The key to understanding who conquered whom lies in the male lineage and therefore in the Y-DNA.

R1a: The Haplogroup (A [haplotype](#) is a group of [alleles](#) in an organism that are inherited together from a single parent, and a haplogroup is a group of similar [haplotypes](#) that share a common ancestor with a [single-nucleotide polymorphism mutation](#)) R1a, is a [human Y-chromosome DNA haplogroup](#) (In [human genetics](#), a human Y-chromosome DNA haplogroup is a defined by [mutations](#) in the non-[recombining](#) portions of [DNA](#) from the male-specific [Y chromosome](#) (called Y-DNA) which is distributed in a large Region in [Eurasia](#), extending from [Scandinavia](#) and [Central Europe](#) to Southern [Siberia](#) and [South Asia](#).⁴

R1a is thought to have Originated about ca. 22,000⁵ to 25,000 years ago.⁶ It's [subclade](#) M417 (R1a1a1) is thought to have diversified about ca. 5,800 years ago.⁷ The place of origin of the subclade plays a role in the debate about the origins of [Proto-Indo-Europeans](#). (The Proto-Indo-Europeans are a hypothetical [prehistoric](#) population of [Eurasia](#) who spoke [Proto-Indo-European](#) (PIE), the ancestor of the [Indo-European Languages](#) according to [linguistic reconstruction](#)).⁸

4 [Underhill et al. 2009 - 2014](#)

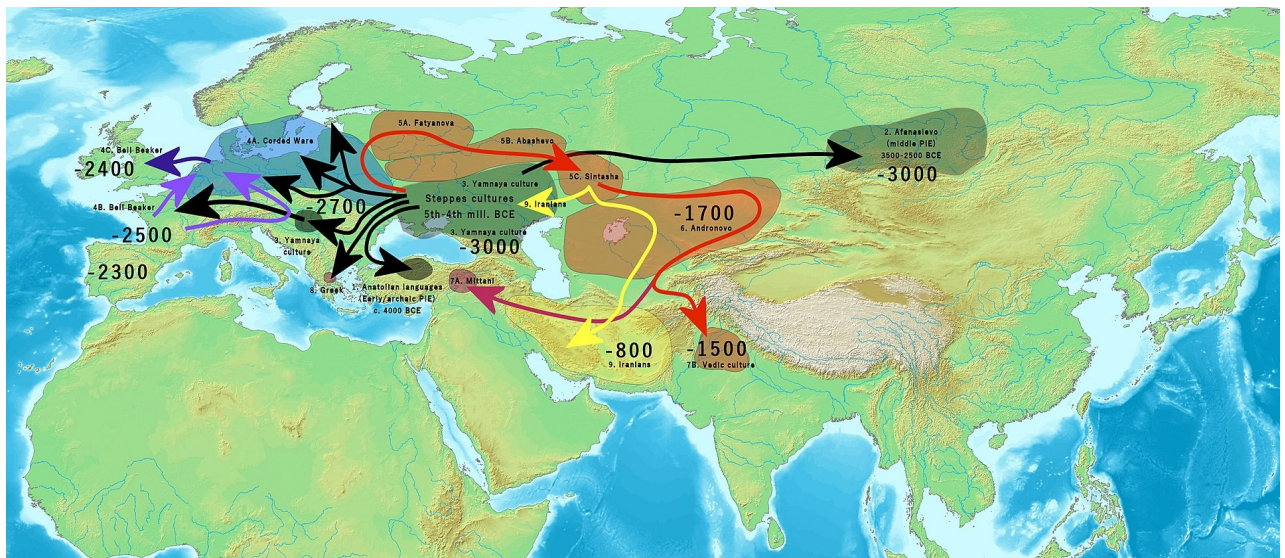
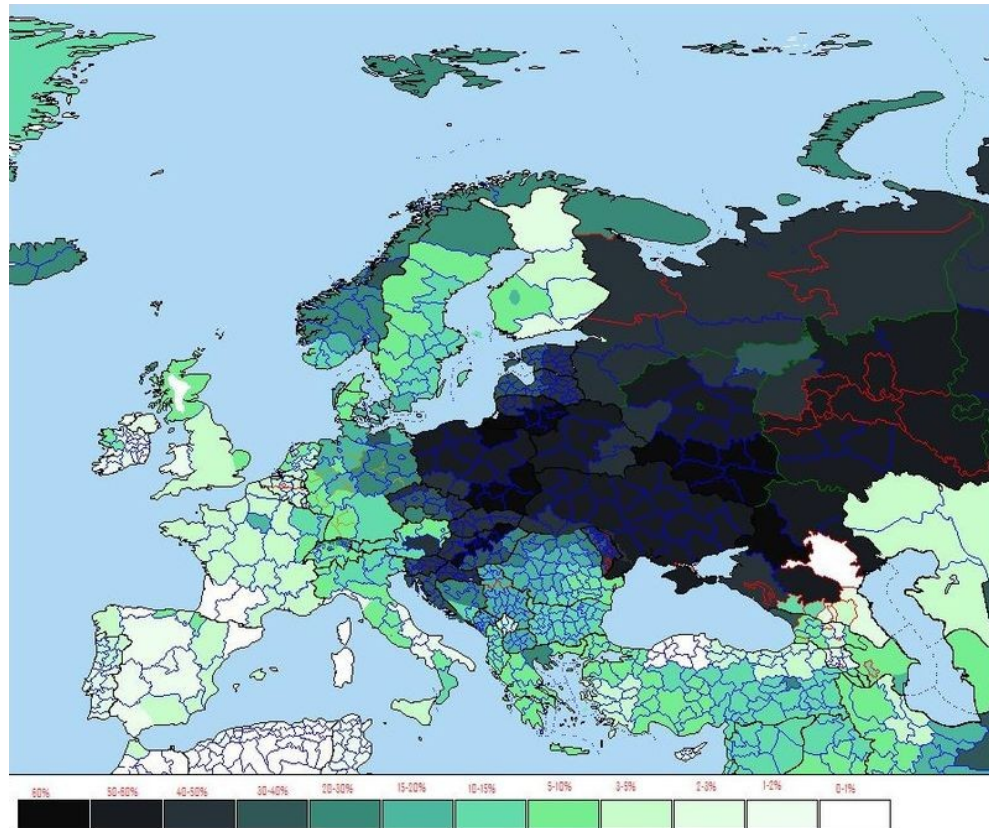
5 [Sharma et al. 2009](#).

6 [Underhill et al. 2014](#).

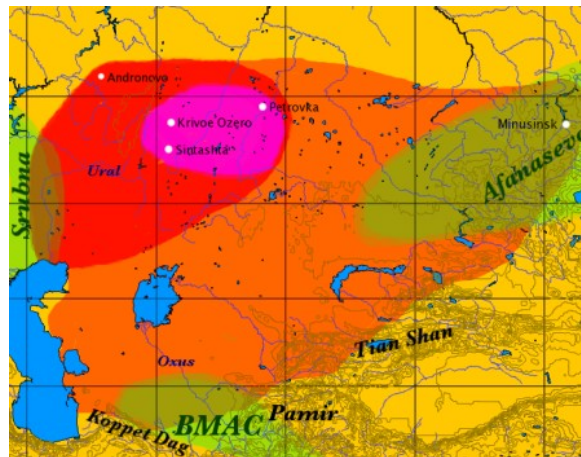
7 [Underhill et al. 2014](#).

8 https://en.wikipedia.org/wiki/Haplogroup_R1a

Map showing frequency of R1a haplogroup:⁹



Indo-European Migrations:



Andronovo Culture: Several Scholars Associate Proto-Tocharians with Afanasievo Culture:



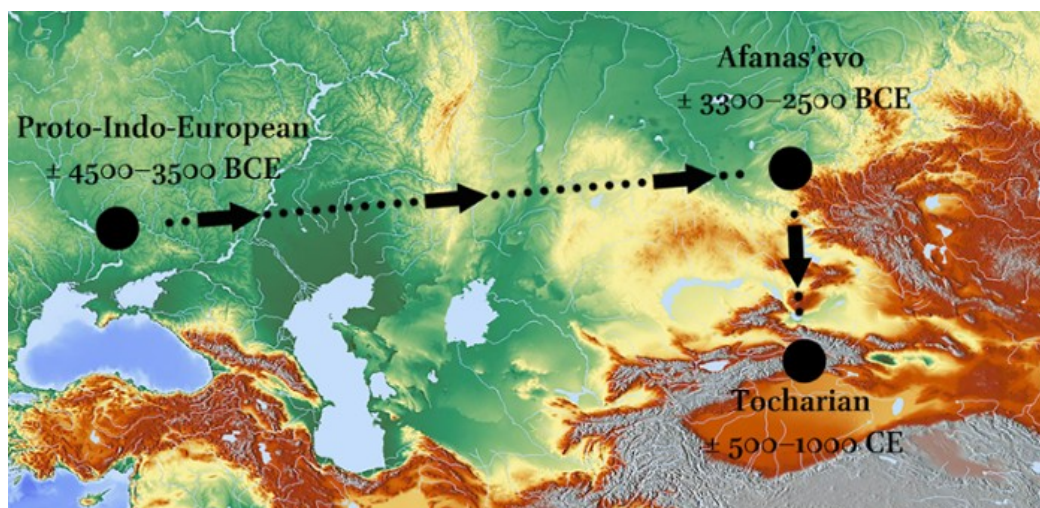
Indo-European Migrations:



The Geographical Spread of the Indo-European Languages with Tocharian in The East:

The Second Major Segment of the Eurasian Steppe extends from the [Altai Mountains](#) in the West to the [Greater Khingan Range](#) on the East, embracing [Mongolia](#) and adjacent Regions. It is higher, colder, and drier than the Western Steppe, with greater seasonal extremes of temperature than are found anywhere else in the World. Some 2,400 Kilometers (1,500 miles) from East to West and about 650 Kilometers (400 miles) to 800 Kilometers (500 miles) from North to South, the Eastern Steppe is in every way a harsher land for human habitation than the Western Steppe. All the same, lower temperatures counteract lower precipitation by reducing evaporation, so that sparse grass does grow, at least seasonally, even where rainfall is only between 250 and 500 millimeters (10 and 20 inches) a year. At higher elevations precipitation increases, and the Mountaintops accumulate snow caps from which Streams descend into the dry lands below. Irrigated cultivation is possible along such streams. Oasis dwellers, whose skills and goods complemented those of Pastoralists, played important roles in Steppe history.

Many studies relating to Indo-European Sequencing place the separation of the Tocharians after that of the Anatolians and prior to any other Branch. This shows the more than 2000 Kilometers migration from the Volga-Ural Steppe, Eastwards across present day Kazakhstan and reaching the Altai Mountains.



Tocharian Migration.¹⁰

The Theory, so far acceptable, and it is merely a theory, is that The Satem-Speaking Tocharians collected a population of Centum-Speaking Wives, either through Warfare or Trade, and intermarried with them. This would explain the presence of Centum words admixed with the Statem main Language.

It is also a fact that the Tocharians borrowed heavily from other Languages during their long wandering; from early Iranian Languages; archaic Finno-Ugric (of the Uralic family); and even Tibetan-like forms, but the structure itself shows much similarity with Germanic Languages primarily, and also with Balto-Slavic Languages. They also include Sanskrit words adopted due to later conversion to the Buddhist Faith. This is similar to the Modern English Language that borrows from the French, while it's Religious Terminology is based upon Latin Loan words.

The various forms of the Tocharian tongues showed a remarkable strength of Identity, in that they survived for about three to four thousand years. There remained traces in Xinjiang even in 500 CE.

10 Citation: Indo-European Linguistics 7, 1 (2019); [10.1163/22125892-00701007](https://doi.org/10.1163/22125892-00701007)

This was also the early home of the Göktürks at that time. There were also found in the Caravan Cities of the Silk Route even though they had sub divided into two or possibly three distinctive Languages (Tocharian A, B and C). However, all of them showed ancient Indo-European traits despite having traversed the enormous (at that time) distance from the Altai Mountains, traveled along the Chinese Border and then towards Central Asia.

The Tocharians appear to have called themselves the extremely pointed name of ‘Asi’ which is an Indo-European verb related to ‘to be’. It is also found in Anatolia and also as the name for the entire Continent of Asia.

“In Language terms, there doesn’t appear to be any evidence of those words in Tocharian A which are used in Asha (Arte/ Rte). This is possibly because the Tocharians separated from other Indo-Europeans prior to the formulation of Asha; or alternately that they never had it or were a military elite which did not include priests among them.”¹¹

Keeping this analysis of Tocharian in mind, it seems as if a Satem Military Elite took over a Centum-Speaking Tribe (or at least it’s women), resulting in the Hybrid Tocharians of recorded History, which occurred before the existence of Asha, approximately 3000 BCE, or later.



Topography of Mongolia.

By Geof (Bearb. +Kartenlegende) - Transferred from de.wikipedia to Commons. See also Datei:OstasienTopografie.jpg, Ausschnitt aus Verhagen-Atlas 1903), Public Domain, <https://commons.wikimedia.org/w/index.php?curid=8456930>

11 Asha is the modern term for the philosophical practice of adherence to the truth of what is, what exists. The word ‘Asha’ comes from Zoroastrianism. Its ancient names were Rte among Indians (Indo-Aryan Hindus), and Arte among Iranians. There are also linguistic pointers toward the philosophy existing amongst early Germans under the name of Istwae. All of these names are the verb ‘to be’, used as nouns. https://www.historyfiles.co.uk/FeaturesFarEast/CentralAsia_Tocharians01.htm

Early Patterns of Migration

These geographical conditions meant that the [Nomads](#) of the Eastern Steppe, living as they did in one of the most severe climates of the Earth, were under constant temptation to move in one of two directions: either Southward and Eastward toward Manchuria and Northern [China](#) or Westward, passing between the [Altai](#) and [Tien Shan](#) along the valley of the [Ili River](#) and the shores of [Lake Balkhash](#), toward the more inviting grasslands of the Western Steppe. Migrations and conquests funneling through this [Dzungarian Gate](#), as it is often called, gave the peoples of all the Steppe a common history from the onset of horse Nomadism.

Warfare techniques, life-styles, religious ideas, artistic styles, Languages, etc., spread widely across the Steppes, never erasing local variations completely but making a single whole of the entire Region in a more intimate way than the fragmentary records left by Civilized Scribes reveal.

Geography:

To the South, the Eurasian Steppe fades into Desert; but the Deserts of Central Asia are dissected by Mountain Ranges in far more complicated fashion than the Steppe proper. Since rainfall usually increases with elevation, Mountains become islands of greenery in otherwise dry landscapes; and streams descending from mountaintops can sustain oasis cultivation in low-lying Desert land. Grassland, sometimes merely seasonal, exists in all the mountainous areas of the Central Asian deserts. Complex, locally variable landscapes result. Hence the Desert Region that extends from the lower Volga and Central Iranian Plateau Eastward through the [Kara-Kum](#) and [Kyzylkum](#) Deserts to the [Takla Makan](#) and [Gobi](#) in the East is uninhabitable only in some salt-encrusted lowlands. Even in the most barren reaches of unsalted soil, some herbage is occasionally available for animals to pasture on, and oases are often densely populated.

In [Central Asia](#) the complex borderlands between the contiguous Steppe in the North and Iran and Turan (i.e., modern [Xinjiang](#) and most of Central Asia), with their tangled mix of Desert, Mountain, [Grassland](#), and cultivated fields, made interpenetration between Nomad populations and settled agriculturalists easy and inevitable. There more than elsewhere civilized traditions of life and those of Steppe tribesmen blended through the centuries of recorded history down to the present.

Altai Mountains, Russian Altay, Mongolian Altayn Nuruu, Chinese (Pinyin) Altai Shan, complex Mountain system of Central [Asia](#) extending approximately 2,000 km (1,200 miles) in a Southeast-Northwest direction from the [Gobi](#) (Desert) to the [West Siberian Plain](#), through [China](#), [Mongolia](#), [Russia](#), and [Kazakhstan](#). The jagged Mountain ridges derive their name from the Turkic-Mongolian *Altan*, meaning “Golden.”



Mongolia: Gobi Altai Mountains

The Gobi Altai Mountains rising from the edge of the Gobi Desert, Southwestern Övörhangay Province, Southern Mongolia.



Altay Republic

Altai Mountains, Altay Republic, Russia.



Mount Belukha

Mount Belukha, Altai Mountains, Southwestern Siberia, Russia.

The system has three main subdivisions: the Altai proper (formerly called the Soviet Altai) and the [Mongolian](#) and Gobi Altai. A Peak in the Altai proper, Belukha—at an Elevation of 4,506 meters (14,783 feet)—is the Range's highest point. In the past these Mountains were remote and sparsely populated; but in the 20th Century they were opened to extensive resource exploitation, and the ancient ways of life of the local peoples have been rapidly transformed.

Physical features

Physiography

The Altai proper lie in the Altay Republic of Asian Russia, in extreme Eastern Kazakhstan, and in the Northern tip of the [Xinjiang](#) Region of China. A belt of Northern Foothills separates the Altai from the West Siberian Plain, while in the Northeast the Altai Border the Western (Zapadny) Sayan Mountains. From [Nayramadlin](#) (Hüyten) Peak, with an elevation of 4,374 meters (14,350 feet), near the point

where the Borders of Russia, Mongolia, and China meet, the Mongolian Altai (Mongol Altayn Nuruu) extend to the Southeast and then to the East. The Western Mongolian Altai form part of the Border between Mongolia and China. The Gobi Altai (Govī Altayn Nuruu) begin some 500 km (300 miles) Southwest of Ulaanbaatar, the Mongolian Capital (also spelled Ulan Bator, formerly Urga or Niislel Khureh, Capital and largest City of Mongolia. It is situated on the Tuul River on a windswept Plateau at an elevation of 1,350 m (4,430 feet)), and dominates the Country's Southern portions, towering over the Gobi expanses.

Geology

The Altai were formed during the great Orogenic (Mountain-building) upthrusts occurring between 500 and 300 million years ago and were worn down, over Geologic time, into a peneplain (a gently undulating [Plateau](#) with generally accordant summit heights). Beginning in the [Quaternary Period](#) (within the past 2.6 million years), new upheavals thrust up magnificent Peaks of considerable size. [Earthquakes](#) are still common in the Region along a [fault](#) zone in the Earth's crust; among the most recent quakes is the one that occurred near [Lake Zaysan](#) in 1990. Quaternary Glaciation scoured the Mountains, carving them into rugged shapes, and changed valleys from a V- to a U-shaped cross section; River erosion has also been intensive and has left its marks on the landscape.

As a result of these differential Geologic forces, the highest Ridges in the contemporary Altai—notably the Katun, North (Severo) Chu, and the South (Yuzhno) Chu—tower more than 4,000 meters (13,000 feet) in elevation, running latitudinally in the Central and Eastern portions of the sector of the system within the Altay Republic. The Tabyin-Bogdo-Ola (Mongolian: Tavan Bogd Uul), the Mönkh Hayrhan Uul, and other Western Ridges of the Mongolian Altai are somewhat lower. The highest Peaks are much steeper and rockier than their Alpine equivalents, but the Ranges and Massifs of the middle Altai, to the North and West, have ridges of about 2,500 meters (8,200 feet), whose softer outlines betray their origins as ancient, smoothed surfaces. Valleys are nevertheless jagged and gorgelike. The ridges are separated by structural Hollows (notably the Chu, Kuray, Uymon, and Kansk), which are filled with unconsolidated deposits forming Steppe landscapes. Elevations Range from 500 to 2,000 meters (1,600 to 6,600 feet) above Sea level.

The extreme dislocations suffered by the Altai over the course of Geologic time have occasioned a variety of rock types, many of them altered by Magmatic and Volcanic activity. There are large accumulations of geologically young, unconsolidated sediments in numerous Intermontane depressions. The Tectonic structures bear commercially exploitable deposits of iron, of such nonferrous and rare metals as mercury, gold, manganese, and tungsten, and of marble.

Climate

The Regional Climate is severely continental: because of the influence of the great Asiatic Anticyclone, or high-pressure area, the Winter is long and bitterly cold. January temperatures Range from -14°C (7°F) in the foothills to -32°C (-26°F) in the sheltered hollows of the East, while in the Chu Steppes temperatures can plunge to a bitter -60°C (-76°F). There are occasional tracts of the permafrost (ground that has a temperature below freezing for two or more years) that coats great stretches of Northern Siberia. July temperatures are warm and even hot—daytime highs often reach 24°C (75°F), sometimes up to 40°C (104°F) on the lower Slopes—but Summers are short and cool in most higher Elevations. In the West, particularly at Elevations between 1,500 and 2,000 meters (5,000 and 6,500 feet), precipitation is high: about 500 to 1,000 mm (20 to 40 inches) and as much as 2,000 mm (80

inches) may fall throughout the year. The total decreases to one-third that amount farther East, and some areas have no snow at all. Glaciers coat the flanks of the highest Peaks; some 1,500 in number, they cover an area of roughly 650 square km (250 square miles).

Drainage

The Altai proper and the Mongolian Altai are crisscrossed by a network of turbulent, rapid Rivers fed mainly by melted snow and Summer rains, which occasion spring and Summer floods. The Katun, Bukhtarma, and Biya—all tributaries of the Ob River—are among the biggest. Rivers of the Gobi Altai are shorter, shallower, and often frozen in Winter and dry in Summer. There are more than 3,500 lakes, most of structural or glacial origin. Those of the Gobi Altai are often bitterly salty.

Plant life

Four fairly distinct vegetation zones can be discerned in the Altai: Mountain Sub-Desert, Mountain Steppe, Mountain Forest, and the Alpine Regions. The first, found on lower slopes and in hollows of the Mongolian and Gobi Altai, reflects the high Summer temperatures and low rainfall: the sparse life includes xerophytic (drought-tolerant) and halophytic (salt-tolerant) plants. The Mountain Steppe zone rises to about 600 meters (2,000 feet) in the North and to 2,000 meters (6,600 feet) in the South and East. Meadows and mixed-grass Steppes are characterized by sod grasses, forb species, and Steppe shrubs. The Mountain Forest zone is most characteristic of the Altai proper; it covers about seven-tenths of the territory, mostly in the low and medium Mountain Regions. Forests reach up to elevations of 2,000 meters (6,600 feet) but climb to about 2,400 meters (8,000 feet) on the drier slopes of the central and Eastern Altai. Most prevalent are coniferous species—larches, firs, and pines (including the Siberian stone pine)—but there are also large areas covered by secondary birch and aspen Forests. A Forest belt is practically nonexistent in the Mongolian and Gobi Altai, but isolated clumps of coniferous trees grow in river valleys. Alpine vegetation—subalpine shrubs giving way to meadows widely used for Summer pasture and then to mosses and bare rock and ice—is found only on the highest ridges.

Animal life

Animal life follows vegetation patterns. Various rodents populate the mountainous semideserts and Steppes, while birdlife includes eagles, hawks, and kestrels. Most species are of Mongolian origin—e.g., marmot, jerboa (a jumping rodent), and antelope. Siberian mammals (bears, lynx, musk deer, and squirrels) and birds (hazel grouse and woodpeckers) frequent the moist coniferous Forests. Alpine animal life includes the Mountain goat, snow leopard, and Mountain ram. Though they must have been larger populations in ancient times.

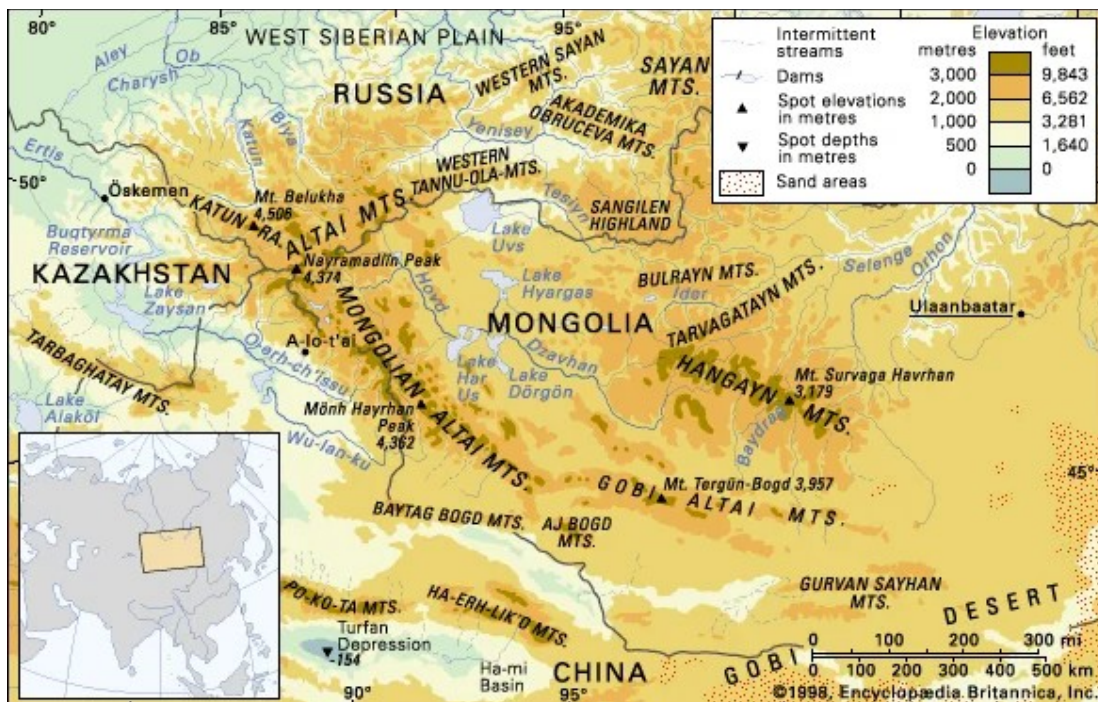
People and economy

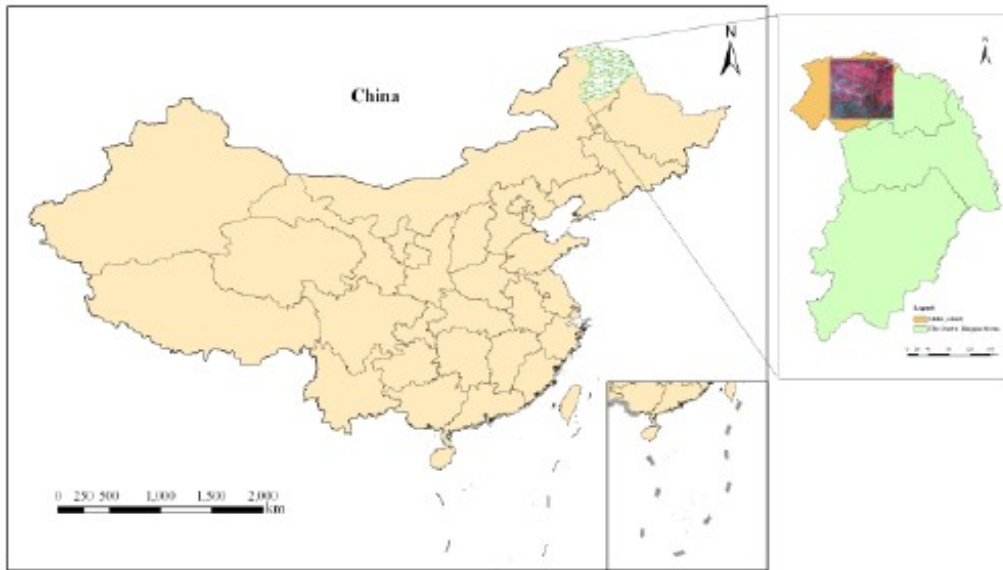
The principal occupation even today is livestock raising, including the breeding of cattle, sheep, and horses. In the [Mongolian](#) and Gobi Altai Horse breeding is practised. In the North cattle and yaks are the mainstays, while the drier South is better suited for sheep, goats, and camels. Southern cattle herders must conduct extensive drives in order to compensate for water and fodder shortages. These Nomadic pastoralists erect temporary dwellings called Yurts, or *Gers*—round structures consisting of felt and hides lashed to lattice frames—in their destination areas. Traditional herding patterns are rapidly giving way to a more sedentary way of life.¹²

Balikon Grassland:



Modern Altai Mountains:





The Location of the Greater Hinggan Mountain in China

Da Hinggan (Greater Khingan) Range:

Da Hinggan (Greater Khingan) Range, Southeast of Hailar, Inner Mongolia Autonomous Region, China.

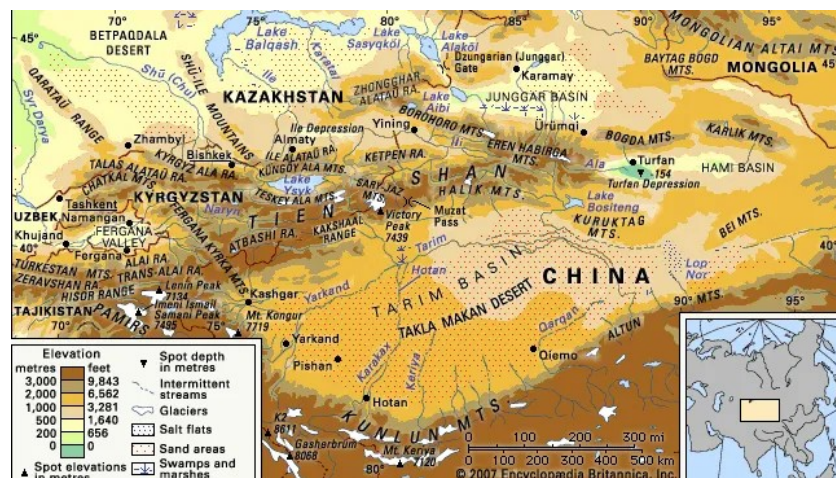
The Da Hinggan Range has an average elevation from 1,200 to 1,300 meters (3,950 to 4,250 feet), the highest Peak reaching 2,035 meters (6,673 feet). The Range is much broader in the North (306 km [190 miles]) than it is in the South (97 km [60 miles]). It was formed during the [Jurassic Period](#) (roughly 200 to 145 million years ago), and it is essentially a tilted fault block; its ancient fault line forms its Eastern edge, facing the Northeast Plain. The Ranges are markedly asymmetrical, with a sharp Eastern face and a more gentle Western slope down to the Mongolian Plateau, which at that point lies at an elevation of 790 to 1,000 meters (2,600 to 3,300 feet). The Eastern slopes are more heavily dissected by the numerous tributaries of the Nen and Sungari Rivers, but generally the Mountains are rounded with flat Peaks. The Ranges are composed largely of igneous rocks (i.e., formed through the solidification of magma).

The Mountains form an important climatic divide. They take most of the precipitation from the southeasterly winds and produce a comparatively wet climate (precipitation exceeds 500 mm [20 inches] annually) that contrasts sharply with the arid Region to the West. The Northern section of the Mountains is the coldest part of Eastern China, with extremely severe Winters (mean temperature -18°F [-28°C]) and with large areas under permafrost. This Region is covered by Forests of larch, birch, aspen, and pine, with shrub cover on the highest elevations. It is rich in wildlife, including deer, elk, marten, hare, and many other fur-bearing animals. The Central and Southern sections of the Range, however, are considerably warmer and drier than in the North, with January temperatures of about -21°C (-5°F), annual precipitation of 250–300 mm (10–12 inches), and comparatively light snowfalls. The coniferous Forests of the North gradually give way in the South to broad-leaved Forests and then to patches of grassland interspersed with woodland. In the South the Forests cover the higher ground above 5,000 feet (1,500 meters), while the greater part of the area is covered with tall grassland. In May 1987 a devastating fire swept the Da Hinggan Forests, destroying perhaps 10,000 square km (4,000

square miles) of timber; it became known as the Black Dragon Fire, for the Heilong Jiang (“Black Dragon River”; i.e., the Amur) that flows through the area.



The Tien Shan, Chinese (Pinyin) Tian Shan or T'ien Shan, Russian Tyan Shan, great Mountain System of [Central Asia](#). Its name is Chinese for “Celestial Mountains.” Stretching about 2,500 km from West-Southwest to East-Northeast, it lies mainly on the border between [China](#) and [Kyrgyzstan](#) and bisects the Ancient Territory of [Turkistan](#). It is about 500 km wide in places at its Eastern and Western Extremities but narrows to about 350 km in width at the Center.



The Tien Shan Mountain Range and the Takla Makan Desert. *Encyclopædia Britannica, Inc.*

The [Junggar \(Dzungarian\) Basin](#) of Northwestern China lies to the North of The Tien Shan, while the Southern [Kazakhstan Plains](#), and to the Southeast, the Tarim (Talimu) Basin, form the boundary. The [Hisor](#) (Gissar) and [Alay](#) Ranges of Tajikistan extend into part of the Tien Shan to the Southwest, making the Alay, Surkhandarya, and Hisor Valleys boundaries of the System, along with the [Pamirs](#) to the South. The Tien Shan also includes the Shū-Ile Mountains and the [Qarataū Range](#), which extend far to the Northwest into the Eastern Kazakhstan Lowlands. Within these limits the total area of the Tien Shan is about 1,000,000 square km.

The tallest Peaks in the Tien Shan are a Central Cluster of Mountains, forming a knot, from which ridges extend along the boundaries between China, Kyrgyzstan, and Kazakhstan; these Peaks are the [Victory Peak](#) (Kyrgyz, Jengish Chokusu; Russian, Pik Pobedy), which at 7,439 meters (24,406 feet) is the highest Mountain in the Range, and the [Khan Tängiri Peak](#) (Kyrgyz, Kan-Too Chokusu), which reaches 6,995 meters (22,949 feet) and is the highest point in Kazakhstan.

Physical Features:

Relief comprises a combination of Mountain Ranges and intervening Fertile Valleys and Basins trending generally from East to West. The deepest depression in the Eastern Tien Shan is the [Turfan \(Turpan\) Depression](#), within which is the lowest point in Central Asia—154 meters (505 feet) below [Sea level](#). Thus, the differences in elevation in the Tien Shan are extreme, exceeding 7 km (4.5 miles). The Eastern extension of the [Turfan Depression](#) is the Hami (Qomul) Basin; both Basins are bounded to the North by the [Bogda Mountains](#), with elevations of up to 5,445 meters (17,864 feet), and by the Eastern extremity of the Tien Shan, the Karlik Mountains, which reach a maximum elevation of 4,925 meters (16,158 feet).

The Ranges are of the Alpine type, with Steep Slopes; Glaciers occur along their Crests. The Basins are bounded to the South by the low-rising [Qoltag Mountains](#). West of the Turfan Depression is one of the greatest Mountain knots of the eastern Tien Shan: the Eren Habirga Mountains, which reach elevations of 5,550 meters (18,200 feet). The Ridge has considerable Glacial development, as well as numerous forms of Relief that indicate the area was the site of Ancient Glaciation.

The Ili Depression is bounded to the South by the highest Mountains in the Central Tien Shan—the Halik Mountains, reaching heights up to 6,811 meters (22,346 feet), and the isolated Ketpen (Ketmen) Range, which rises to an elevation of 3,474 meters (11,396 feet) in the central part of the Depression.

To the South the Ile Alataū (Trans-Ili) Range rises abruptly above the Ili Depression to a height of 4,973 meters (16,315 feet). The successive Transitions of Climatic zones, determined by Elevation, from Arid and Dry Steppe at lower levels to Glacial at the Summit, is evident on the Northern slopes of this Range.

The Southern Tien Shan Ranges (including [Turkistan](#), [Zeravshan](#), and Alay, among others) Border the Fergana Valley on the South and extend chiefly East and West. The maximum elevation is 5,621 meters (18,441 feet), with several peaks above 15,000 feet. To the South the Tien Shan meets the [Pamirs](#). Foothills approach the Northern slopes of the Ranges, and there are Oases on the Plains below the Mountains.

Climate:

The position of the Tien Shan in the Center of Eurasia Governs its sharply Continental Climate, characterized by great extremes of Temperature in Summer and Winter. The characteristic aridity of the region is manifest in the surrounding Deserts and Dry Regions. The area absorbs much Solar Heat, and

there are about 2,500 hours of sunshine each year. The Climate becomes progressively cooler and more humid as the Elevation of the Mountains increases. Permafrost (ground with Temperatures continuously below 0 °C [32 °F] for two or more years) is extensive above 2,750 meters (9,000 feet). The prevalent air masses are transported over the Tien Shan by moisture-bearing Westerly winds from the [Atlantic Ocean](#). Most of the Precipitation falls on the windward Western and Northwestern slopes at elevations between 2,300 and 2,750 meters (7,500 and 9,000 feet); it varies from 710 to 790 mm (28 to 31 inches) at one extreme to 1,500 to 2,000 mm (59 to 79 inches) at the other. To the East and in the interior regions of the Tien Shan, the total Precipitation decreases to between 200 and 400 mm (8 and 16 inches), and it amounts to less than 100 mm (4 inches) in places. Maximum precipitation falls on the Southern Tien Shan in March and April, and the Summer is dry. In the Western and Northern Tien Shan, most of the rain falls during the warm period of the year, with a maximum in April or May. Most of the rain in the inner and eastern Tien Shan Regions falls during the summer months. Many mountain valleys there are used as winter pastures because of the small amount of snow that falls in wintertime. Temperatures vary in the Tien Shan, mostly depending on elevation. Summer is hot in the foothills: the mean temperature in July may reach 27 °C (81 °F) in the [Fergana Valley](#), 23° C (73 °F) in the Ili Valley Depression, and up to 34 °C (93 °F) to the East, in the [Turfan Depression](#), where the Climate is even more continental. The Temperature in July at a height of about 3,200 meters (10,500 feet) in the inner Tien Shan drops to 5 °C (41 °F), and frost is possible throughout the summer. The mean temperature in January in the Fergana Valley is – 4 °C (25 °F), in the Ili Depression it is – 10 °C (14 °F), and it drops to – 23 °C (– 9 °F) in the Alpine Regions of the inner Tien Shan; in places (in particular, the Ak-Say Valley) temperatures as low as – 50 °C (– 58 °F) have been recorded.

Plant life:

The characteristics of flora in the Tien Shan are determined largely by the region's distinct zones of elevation, which provide a diverse distribution of soils and vegetation. In the foothills and plains at the base of the mountains, semi-desert and desert areas have usually developed; these zones continue to elevations between about 1,500 and 1,800 meters (5,000 and 6,000 Feet) in the Eastern section. In the Tien Shan they are characterized by ephemeral vegetation growths that die out at the beginning of Summer; drought-tolerant grasses, wormwood, and species of the desert shrub genus Ephedra are generally distributed. The most common landscape in the Tien Shan is [Steppe](#), which occurs at elevations between about 1,050 and 3,350 meters (3,500 and 11,000 feet). In [China](#) and the Central Asian republics measures have been taken to restore vast areas of steppe grassland that have been depleted by overgrazing.

The [Forests](#) of the Tien Shan alternate with Steppes and Meadows. Forests are found principally on the Northern slopes and range between elevations of about 1,500 and 3,000 meters (5,000 and 10,000 feet). On the lower slopes of the outer Ranges, the Forests are mainly Deciduous, consisting of Maple and Aspen, with extensive admixtures of wild Fruit Trees (Apples and Apricots). Vast areas of the Southwestern slopes of the Fergana Kyrka Mountains are occupied by ancient Nut-bearing Forests. Stands of Pistachio, Walnut, and Juniper are found up to 2,000 meters (6,500 feet) on the shaded slopes of several Western and Southern Tien Shan Ranges. North and East of the [Fergana Valley](#), Coniferous Forests predominate. At the upper Boundary they are often replaced by Sparse Juniper Forests. The marshy forests in the river valley bottoms, in which Aspen, Birch, Poplar, and various Brushwoods ordinarily grow, lie far outside the Forest zone. Over millennia, cutting for fuel has reduced much of

the tree cover in some areas, although the forced relocation of many mountain inhabitants to irrigated valleys beginning in the second half of the 20th Century has reversed this pattern.

The Forest glades and areas adjacent to the upper tree line are usually covered with [Meadow Vegetation](#). Subalpine Meadows of mixed grasses and cereals extend up to almost 3,000 meters (10,000 feet) on the moist Northern slopes but on Southern slopes are usually replaced by Mountain Steppes. There are short-grass Alpine Meadows up to 3,500 meters (11,500 feet). In the inner and Eastern Tien Shan Regions, at elevations between 3,400 and 3,700 meters (11,200 and 12,000 feet) and sometimes higher, the level areas and gentle slopes are “Cold Deserts,” with sparse and short vegetation. Mosses and lichens are found in the areas of the Glacial zone that are free of soil cover.

Animal life:

The diversity and range of animals and birds in the Tien Shan increased markedly following the relocation of much of the human population to lower elevations. Species typifying the Mountain fauna include Wolves, Foxes, and Ermines. There also are many distinctively Central Asian species, chiefly inhabiting the high mountains; these include Snow Leopards, Mountain Goats, Manchurian Roe, [Roe deer](#), and [Mountain Sheep](#). The Forest-Meadow-Steppe zone is inhabited by Bears, Wild Boars, Field Voles, members of the Jerboa family (Nocturnal Jumping Rodents), and members of the Ochotonidae family (short-eared Mammals related to the Rabbits). The many Birds include the Mountain Partridge, Pigeon, Alpine Chough, Crow, Mountain Wagtail, Redstart, Birket (a Golden Eagle), Vulture, Himalayan Snow Cock, and other species. The lower Zones—Desert and Semiarid Regions—are visited by animals from the neighboring Plains, such as Antelopes, Gazelles, Tolai Hares, and Gray Hamsters. Lizards and Snakes are also found.

In antiquity the [Silk Road](#) linking China and [Southwest Asia](#) followed the Southern edge of the Tien Shan. Continental Warfare limited the utility of this route after about 1500 CE.

Military and Political Developments among the Steppe Peoples to 100 BCE.

The Military advantages of Nomadism became apparent even before the speed and strength of horses had been fully harnessed for Military purposes.

Horsepowered Warfare.

Evidence from the [Ukraine](#) suggests that [horses](#) were first mounted about 4000 BCE, but their role in Warfare remains unclear. By the 2nd Millennium, horses were used in War to pull light, two-wheeled [chariots](#) that carried a two-man crew. A driver held the reins and controlled the team of horses while his companion shot arrows from the chariot’s platform. No foot soldiers could stand against this form of attack when it was new. Warriors who had access to horses and chariots therefore enjoyed an easy superiority in battle for nearly five centuries.

The principal beneficiaries were Indo-European tribesmen, who already possessed horses. About 2000 BCE people on the Western Steppe or in Mesopotamia, Syria, and Turkey learned to make [spoked wheels](#) that were strong enough to withstand the impact of a human cargo bouncing across natural land surfaces at a gallop. Soon after, chariot conquerors overran the entire [Middle East](#). Others invaded [India](#) about 1500 BCE and extinguished the [Indus Civilization](#). Chariots also spread throughout Europe. Even in distant [China](#), by the 14th Century BCE, rulers of the [Shang Dynasty](#) (traditional date c. 1766–1122 BCE) were using chariots and bows very similar to those of the Indo-European tribesmen farther West.

Then the rise of [iron metallurgy](#) cheapened arms and armor sufficiently to allow common foot soldiers to overthrow the chariot aristocracies of the Middle East. But this, too, had no immediate impact upon Steppe peoples. Iron arrowheads were not notably better than arrowheads made of flint or obsidian; and the new metal, even if cheaper than bronze, remained too expensive for ordinary herdsman. Soon after 900 BCE, however, another revolution came to ancient patterns of Warfare that did affect the Steppe profoundly. Men learned how to fight effectively on horseback, thus dispensing with cumbersome, costly chariots and unleashing the full agility and speed of a galloping horse for Military purposes.

This extraordinary synergy of man and horse became routine between 900 and 700 BCE. As the new art of horsemanship spread, Nomads of the Northern Steppe found themselves in a position to take full advantage of the Mobility and striking power a Cavalry force could exert. Mounted raiding parties from the Steppes became difficult indeed for sedentary peoples to combat, since horsemen could move far faster than foot soldiers and were therefore able to concentrate greater numbers at will and then flee before a superior countervailing force manifested itself. Cavalry was necessary to repel such raids, but raising horses in landscapes where grass did not grow abundantly was very expensive since the grain came directly from stocks that would otherwise feed human beings.

In the next Century, however, the collapse of the Persian Frontier Guard in [Central Asia](#) and the consolidation of a new Steppe Empire based in Mongolia combined to provoke large-scale displacements of peoples Westward along the Steppe and Southward from the Steppe onto cultivated ground. For the first time, the natural gradient of the Eurasian Steppe came fully into play when a tribal confederation, called [Xiongnu](#) by the Chinese, attained an unmatched formidability. This happened at the very end of the 3rd Century BCE. Neighbors on the Steppe, fleeing from the Xiongnu, moved South and West, generating in turn a wave of Migration that eventually reached from the borders of China as far as Northwestern India and the Roman limes along the Danube.

The key change was the introduction of alfalfa (lucerne) as a cultivated crop. [Alfalfa](#), if planted on fallowed fields, provided a fine fodder for horses, and [nitrogen-fixing bacteria](#) that grew on its roots enhanced the fertility of the soil for subsequent grain crops. Moreover, horses stall-fed on alfalfa (with some additional grain) could be bred bigger and stronger than the Steppe ponies that had only grass to eat. Big horses in turn could support armored men on their backs and even carry armor to protect their own bodies. Such armored Cavalrymen, scattered out across the agricultural landscape as Lords and local protectors of village communities, could readily assemble a formidable Force to oppose Nomad raiding parties. Their armor permitted them to withstand enemy arrows while returning shot for shot; and when Steppe intruders sought to withdraw, the heavy Cavalrymen could pursue farther and faster than ever before, making it hard for a raiding party to find a safe camping ground for the night or a place to graze their horses. In this way cultivated land could support an effective Frontier Guard against the Steppe for the first time since the Cavalry Revolution had tipped the balance so sharply in favor of Steppe dwellers. Even so, big horses and armor were always expensive, and an aristocratic and decentralized (i.e., feudal) political and social system invariably developed with this kind of Military establishment.

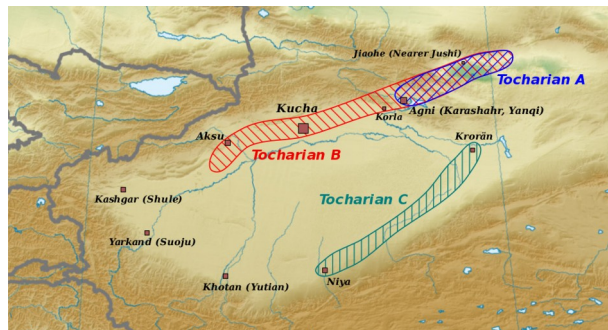
Life-styles among Eurasian horse nomads had attained a fine adjustment to the grasslands; and with the invention of [stirrups](#) in about 500, symbiosis between man and mount achieved a precision that defied further improvement. Accurate shooting on the run became possible for the first time when a rider could stand in his stirrups absorbing in his legs the unsteadiness of his galloping mount. But stirrups

also made Cavalry lances far more formidable, since a rider, by bracing his feet in the stirrups, could put the momentum of a galloping [horse](#) and rider behind the thrust of his spearhead. Thus the enhancement of Steppe Archery through the use of stirrups was counteracted by a parallel improvement in the effectiveness of the heavy Armored Cavalry that guarded Middle Eastern and European farmlands against the steppe Nomads.

Language:

The earlier feature on Indo-European (IE) Language and migration shows IE migration out of the Pontic-Caspian steppe by around 3000 BC, with the Centum-speaking Tocharians apparently being edged ever Eastwards by Satem Speakers who were also expanding into the East.¹³

Placed squarely astride the confluence of Western and Eastern Culture and a Major Crossroads for the exchange of Trans-Eurasian Culture; Agriculture and Languages, is what is presently known as the Xinjiang Uighur Autonomous Region, or Historically Muslim East Turkestan, before being conquered by the Chinese. This area is bifurcated by the Tianshan Mountains, dividing it into the Dzungarian Basin in the North, which contains the Gurbantünggüt Desert surrounded by a Sea of Grasslands, traditionally inhabited by Mobile Pastoralists, and The Tarim Basin. Which is a dry inland sea that forms the Taklamakan Desert. Presently, this area is mostly uninhabited but also contains small Oases and Riverine Corridors, “fed by runoff from thawing glacier ice and snow from the surrounding high Mountains,” where Mobile Pastoralists used to dwell. The venerable authors fail to take into account the fact that it is not at all necessary for the environmental conditions prevalent today were always the condition of these areas. Mobile Pastoralists have been directly responsible for destroying the delicate ecological balance of many Eco Niches due to Overgrazing and the raising of Goats with close cropping habits.



Tocharian Languages: A (Blue) B (Red) and C (Green) Spoken by the Tocharian People in the Tarim Basin:

A needless controversy has been raised by some Chinese and Indian Nationalist Authorities, which casts doubts upon the Tocharian origin of the Ancient Mummies that have been discovered in the Tarim Basin. Despite the fact that a study by Leading Chinese Scientists,¹⁴ clearly states that the Mummies discovered in the Dzungarian Basin have been genetically identified with Afanasievo Herders of the Altai-Sayan Region in Southern Siberia (3150 – 2750 BCE). They are closely linked to the Yamnaya Culture Peoples (3500 – 2500 BCE) People of the Caspian Steppe, which lies about 3,000 km to the West of this area. Linguists have theorized that the Afanasievo Dispersal brought the Tocharian Branch

13 https://www.historyfiles.co.uk/FeaturesFarEast/CentralAsia_Tocharians01.htm

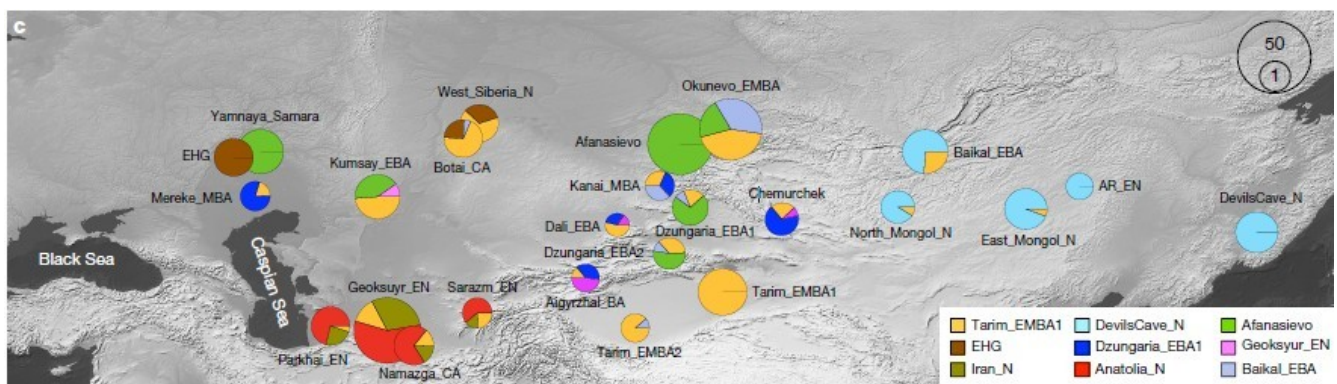
14 The genomic origins of the Bronze Age Tarim Basin mummies. Fang Shang et al.

of the PIE Languages towards the East at a sufficiently early period, by the 3rd or 4th Millennium BCE to have caused isolated development of the Language.

They are the first to admit that “although Afanasievo-related ancestry has been confirmed among Iron Age Dzungarian populations (around 200–400 BCE), and Tocharian is recorded in Buddhist texts from the Tarim Basin dating to 500–1000 BCE,¹⁵ little is known about earlier Xinjiang populations and their possible genetic relationships with the Afanasievo or other groups.”¹⁶

The quoted report goes on to say: “Outgroup f_3 statistics supports a tight genetic link between the Dzungarian and Tarim groups. Nevertheless, both of the Dzungarian groups are significantly different from the Tarim groups, showing excess affinity with various Western Eurasian populations and sharing fewer alleles with ANE-related groups.”¹⁶

We also find that the Chemurchek, an EBA Pastoralist Culture that succeeds the Afanasievo in both the Dzungarian Basin and Altai Mountains, derive approximately two-thirds of their ancestry from Dzungaria_EBA1 with the remainder from Tarim_EMBA1¹⁷ and IAMC¹⁸/ BMAC¹⁹-related sources”



Genetic ancestry and admixture dating of ancient populations from Xinjiang and its vicinity. **a**, qpAdm-based estimates of the ancestry proportion of Dzungaria_EBA and Tarim_EMBA from three ancestry sources (AG3, Afanasievo and Baikal_EBA) (Supplementary Data 1D, E). Unlike Dzungaria_EBA individuals, Tarim_EMBA individuals are adequately modelled without EBA Eurasian steppe pastoralist (for example, Afanasievo) ancestry.

b, Genetic admixture dates for key Bronze Age populations in Inner Asia, including Dzungaria_EBA1 ($n = 3$), Chemurchek ($n = 3$), Kumsay_EBA ($n = 4$), Mereke_MBA ($n = 2$), Dali_EBA ($n = 1$) and Tarim_EMBA1 ($n = 12$). The blue shade represents the radiocarbon dating range of the Yamnaya and Afanasievo individuals. The orange circles and the associated vertical bars represent the averages and standard deviations of median radiocarbon dates, respectively. The circles above each orange circle represent the estimated admixture dates with a generation time of 29 years, and the vertical bars represent the sum of standard errors of the admixture date and the radiocarbon date estimate. **c**, Representative qpAdm-based admixture models of ancient Eurasian groups.²⁰

- 15 Peyrot, M. The deviant typological profile of the Tocharian branch of Indo-European may be due to Uralic substrate influence. *Indo-Eur. Linguist.* 7, 72–121 (2019).
- 16 The genomic origins of the Bronze Age Tarim Basin mummies, pg. 1.
- 17 Terminal Pleistocene Individual.
- 18 The Inner Asia Mountain Corridor (IAMC) was an ancient exchange route ranging from the Altai Mountains in Siberia to the Hindu Kush (present-day Afghanistan and northern Pakistan), which took shape in the 3rd millennium BCE.
- 19 The Bactria–Margiana Archaeological Complex (short BMAC) or Oxus Civilization, recently dated to c. 2250–1700 BC.
- 20 Supplementary Data 1D–I). For Dzungaria_EBA1 and Geoksyur_EN, we show their three-way admixture models including Tarim_EMBA1 as a source. For later populations in Xinjiang, IAMC and nearby regions, we used them as sources, and allocated a colour to each of them (blue for Dzungaria_EBA1; magenta for Geoksyur_EN). The base map in **c** was obtained from the Natural Earth public domain map dataset (<https://www.naturalearthdata.com/downloads/10m-raster-data/10m-gray-earth/>).

Investigations of the ‘Tarim Basin Mummies’ discovered in the Tarim Basin, including the Takla Makan Desert, dating from around 2000 BCE reveal a Bronze Age, Agricultural Community.



The Taklamakan Desert:

By Pravitt - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=3575981>



Map of Taklamakan Desert:

By Kmusser - Own work using Digital Chart of the World and GTOPO data, labels based on GEOnet., CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=5508152>

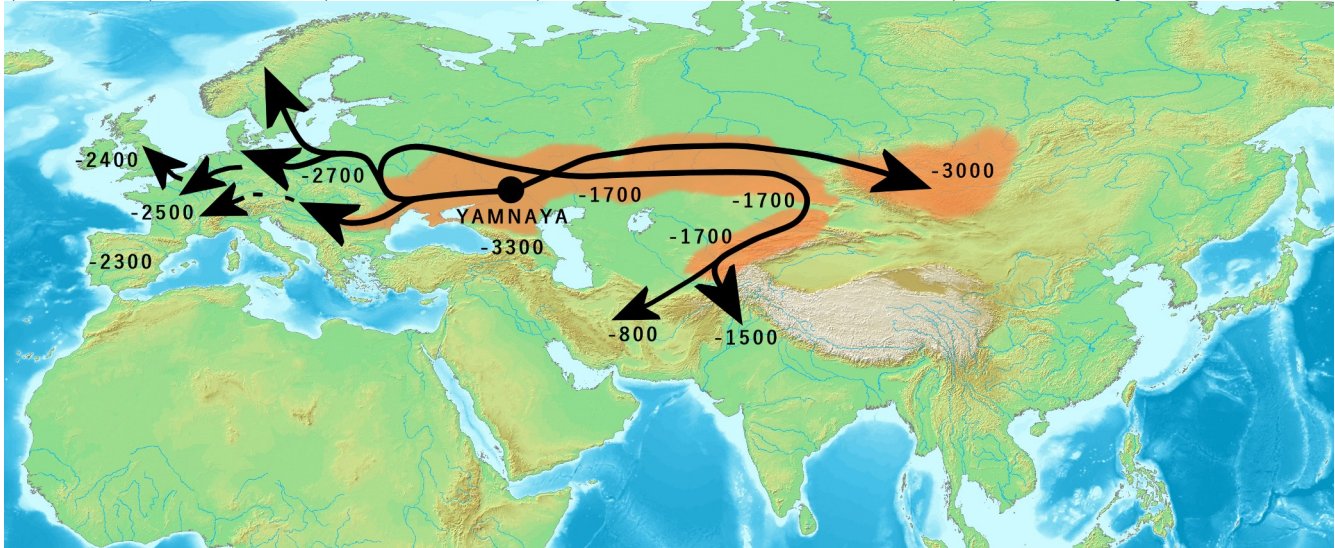
Map of the [Tarim River Drainage Basin](#). Note that River courses shown crossing the [Taklamakan Desert](#) are usually dry.

The Irrigation Technology that would have made such a Community Operable was initially developed in the Bactria-Margiana Archaeological Complex (BMAC) to the West of the Pamir Mountains, during the 3rd Millennium BCE. How this technology was imported into the Tarim Basin has not been successfully answered.

It appears that the staple crops being cultivated were Wheat and Barley, which also originated in the West. It has been theorized that the Tarim Basin was first settled by Tocharian-Speakers belonging to

the Afanasevo Culture originating in the North and who occupied the Northern and Eastern Edges of the Tarim Basin.

Migration of Yamnaya-related people, 3000 BCE: Initial Eastward Migration initiating the Afanasievo Culture, possibly [Proto-Tocharian](#). 2700 BC: Second Eastward Migration starting East of Carpathian Mountains as Corded Ware Culture, transforming into [Fatyanovo-Balanova](#) (2800 BCE) → Abashevo (2200 BCE) → Sintashta (2100-1900 BCE) → Andronovo (1900-1700 BCE) → [Indo-Aryans](#).²¹



Thus, The Afanasevo Culture (c. 3500–2500 BCE) arose from the earlier Yamnayan Culture and shows both Cultural and Genetic Linkages with the Indo-European associated Cultures of the Central Asian Steppe but predates the associated Indo-Iranian associated Andronovo Culture (c. 2000 – 900 BCE), explaining why the Tocharian Languages are distinctly isolated from influences of Indo-Iranian innovations like Satemization.

Later waves of Sakas, Speaking Iranian Languages also penetrated into the area in the 1st Millennium BCE. It is postulated that they were the source of the Iranian Loan words relating to Commerce and warfare, into the Tocharian Languages.

Earliest references in Chinese Texts:²²



Circa 210 BCE, the Yuezhi resided to the Northwest of [Qin China](#).

²¹ Anthony (2007), 2017; Narasimhan et al. (2019); Nordqvist and Heyd (2020).

²² https://en.wikipedia.org/wiki/Yuezhi#cite_ref-19

Three pre-Han texts mention peoples who appear to be the Yuezhi, albeit under slightly different names.²³

The philosophical tract *Guanzi* (73, 78, 80 and 81) mentions [Nomadic Pastoralists](#) known as the *Yúzhī*, who supplied [Jade](#) to the Chinese

According to the *Guanzi*, the *Yúzhī*/ *Niúzhī*, unlike the neighboring [Xiongnu](#), did not engage in conflict with nearby Chinese states.

The Epic Novel *Tale of King Mu, Son of Heaven* (early 4th Century BCE) also mentions a plain of *Yúzhī* to the Northwest of the Zhou lands.

Chapter 59 of the *Yi Zhou Shu* (probably dating from the 4th to 1st Century BCE) refers to a *Yúzhī* people living to the Northwest of the Zhou domain and offering horses as tribute.

In the 1st Century BCE, [Sima Qian](#) – widely regarded as the founder of [Chinese historiography](#) – describes how the [Qin Dynasty](#) (221–206 BCE) bought jade and highly valued Military [horses](#) from a people that Sima Qian called the *Wūzhī*, led by a man named as *Luo*. The *Wūzhī* traded these goods for Chinese [silk](#), which they then sold on to other neighbours. This is probably the first reference to the Yuezhi as a lynchpin in Trade on the [Silk Road](#), which in the 3rd Century BCE began to link Chinese States to Central Asia and, eventually, the Middle East, the Mediterranean and Europe.

Account of Zhang Qian:

The earliest detailed account of the Yuezhi is found in chapter 123 of the *Records of the Great Historian* by [Sima Qian](#), describing a mission of [Zhang Qian](#) in the late 2nd century BC. Essentially the same text appears in chapter 61 of the *Book of Han*, though Sima Qian has added occasional words and phrases to clarify the meaning.

Both texts use the name *Yuèzhī*, composed of characters meaning "moon" and "clan" respectively. Several different [romanizations](#) of this [Chinese-Language](#) name have appeared in print. The Iranologist [H. W. Bailey](#) preferred *Üe-tši*.

Yuezhi and Xiongnu:

The account begins with the Yuezhi occupying the grasslands to the northwest of China at the beginning of the 2nd century BC:



Territory of the Xiongnu in the 2nd century BC, and original location of the Yuezhi in [Gansu](#).
The Great Yuezhi was a nomadic horde. They moved about following their cattle, and had the same customs as those of the Xiongnu. As their soldiers numbered more than hundred thousand, they were strong and despised the Xiongnu. In the past, they lived in the region between Dunhuang and Qilian.

— *Book of Han*, 61



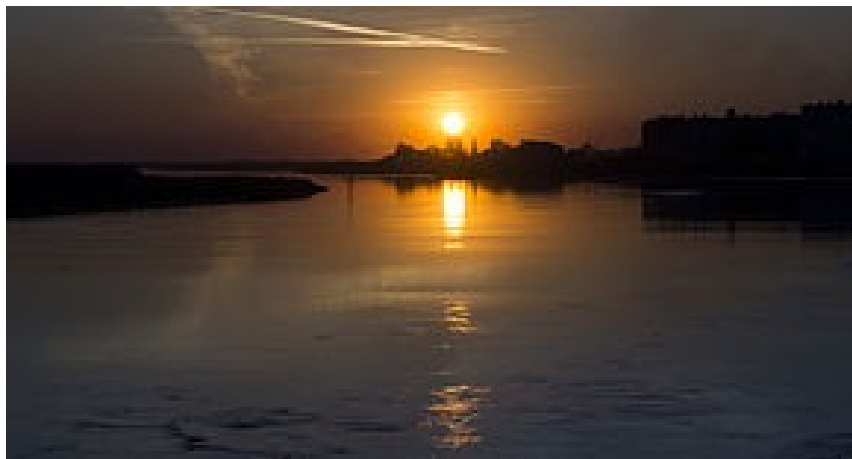
Tocharian Royal Family of the Oasis City-State of [Kucha](#) (King, Queen and fair-haired young Princes),
[Cave 17, Kizil Caves](#). Circa 500 CE, [Hermitage Museum](#).

The Tocharians:

These people, they said, exceeded the ordinary human height, had flaxen hair; and blue eyes, and made an uncouth sort of noise by way of talking, having no Language of their own for the purpose of communicating their thoughts.

– Pliny the Elder on the Report of an Embassy from Sri Lanka on the People who live in “Seres” (Northwestern China).²⁴

The ancient Roman Geographer Strabo (who lived around the year 0) wrote: *"Now the greater part of the Scythians, beginning at the Caspian Sea, are called Däae, but those who are situated more to the East than these are named Massagetae and Sacae, whereas all the rest given the general name of Scythians, though each people is given a separate name of its own. They all are, for the most part Nomads. But the best known of the Nomads are those who took away Bactriana from the Greeks, I mean the Asii, Pasiani, Tochari, and Sacarauli, who originally came from the country on the other side of the Jaxartes River."*²⁵



The Syr Darya or Jaxartes River.

²⁴ <https://benjaminpbreen.com/2010/06/12/vanished-civilization-ii-the-tocharians/>

²⁵ Strabo, Geography, 11.8.1

In the Prologue to Pompey Trogus' Book XLII, where it says: *"Reges Tocharorum Asiani interitusque Saraucarum"*, *"Asiani became Kings of Tochari and then wiped out the King of Saka"*. It may mean that the people *"Tochari"* chose as their Kings a group of experienced and hardened warriors, *"Asiani"*, and then they won victory over their enemies.²⁶

The famous Han Dynasty historian Sima Qian – who wrote almost a hundred years after the Qin Dynasty's demise – reported in *"Shi Ji"* that Yuezhi was armed with spears, swords and bows, they used chain mail. They cut their hair at their shoulders, except the King, who wore long hair, tied up with a ribbon. They practiced arable farming, cattle breeding and breeding horses. They burned their dead. They liked to eat fried peacocks, and they dependent to excessive beer drinking. What amazed the Chinese most was that Yuezhi had so much hair on their body and face.

In the 5th Century CE, Scholar, translator and monk Kumarajiva, while translating texts into Chinese, used the Chinese character for Yuezhi to represent Tochar.



These are the Chinese characters for Yuezhi. The first character means "moon". The second sign is "zhi", which means something like "member of" or "supporter of". In the old days, the daughters of a Chinese family often did not get a name; after all, they were only girls, they had to satisfy with a number. When a girl then was married to another family, such for example with the name "Wang", then this character was used and the girl came to be called "Wang Zhi". So, to understanding the characters take the characters literally according to their denomination, the Yuezhi people worshiped the moon. However, it is also possible that the characters were used as a kind of alphabet, so to be understand that the words for these characters sounded like Yuezhi's name, which they called themselves. Chinese characters are alphabetized in different ways. "Yuezhi" is alphabetized with the modern pinyin system, while in the slightly older "Wade-Giles" system, it is written "Yüeh-Chih". In Professor Daniel C. Waugh's *"Selections from the Han Narrative Histories,"* they are called "Yue-te," and since we know that a leading "Y" in many Languages, including Danish, corresponds to "J", it can also be written "Jue-te".

A later Chinese traveler, Wan Zhen, visited Yuezhi's descendants a few hundred years later, when they were living in Bactria. He writes that their skin color was reddish white, making it likely that they were Indo-Europeans related to Tocharians in the nearby Tarim Basin, who also had white skin as shown on their cave paintings. Wan Zhen wrote about Yuezhi in Bacteria: *"There are so many riding horses in the Country that the number often reaches hundreds of thousands. Town lay-out and Palaces pretty much resemble those of Daqin (the Roman Empire). The people's skin is reddish white. They are skilled in archery from horseback."*

The great traveler Zhang Qian later tells of their descendants and related people in the West: *"They are skilled in trading and will haggle over a fraction of a penny. Women are held in great respect and the men make decisions on the advice of their women."*

The Eastern edge of the Tarim Basin, yielded Mummies that had been extremely well preserved by Desert Conditions and dated back to 2000 BCE. They were found to be of Caucasoid types with light-colored hair.



One of the Tarim Mummies which have been excavated from Sites around the Tarim Basin. Genetic Examination of the Mummies belonging to the earliest layer in the Xiaohe Cemetery revealed that the maternal lineages were a mixture of East and West Eurasian types, while all the paternal lineages were of West Eurasian type. this means that the Tocharian males were descended from the Satem-speaking Forest and Forest Steppe Indo-Europeans, not the Steppe-dwelling, Centum-speaking Indo-Europeans as was generally expected.



An artist's reconstruction of one of the Tarim mummies shows a distinctly Caucasoid appearance

Historians have labeled the Tocharians with various appellations such as The Greater and the Lesser Yuezhi.

Over 2 Millennia after these dates, the Frescos painted at Tocharian Sites depict figures with light eyes and hair colors similar to Great Yuezhi Horsemen of the First Two Centuries BCE.

Chinese Historians have described these Tribesmen as Nomadic Pastoralists that inhabited the arid Grasslands in the Western Part of China. They are reported to have held a Fighting Force of over Two Hundred Thousand Horsemen and lived in the Region between Dun-Huang and Qilan during the 1st Century BCE.

Almost One Hundred after the collapse of the Han Dynasty, The Renowned Historian, Sima Qian, stated in his Book “Shi Ji”, that the Yuezhi were armed with Spears, Swords and Bows and wore Chain Mail Armor. They cut their hair at the Shoulders, with the exception of The King, who wore Long Hair that was shown as tied up with a Ribbon. They engaged in Arable Agriculture and used to burn their dead. The Chinese Writers have expressed amazement about the excessive body and Facial hair of the Tribesmen.

A later Chinese traveler, Wan Zhen, visited Yuezhi's descendants a few hundred years later, when they were living in Bactria. He writes that their skin color was reddish white, making it likely that they were Indo-Europeans related to Tocharians in the nearby Tarim Basin, who also had white skin as shown on their cave paintings. Wan Zhen wrote about Yuezhi in Bactria: *"There are so many riding horses in the country that the number often reaches hundreds of thousands. Town lay-out and palaces pretty much resemble those of Daqin (the Roman Empire). The people's skin is reddish white. They are skilled in archery from horseback."*



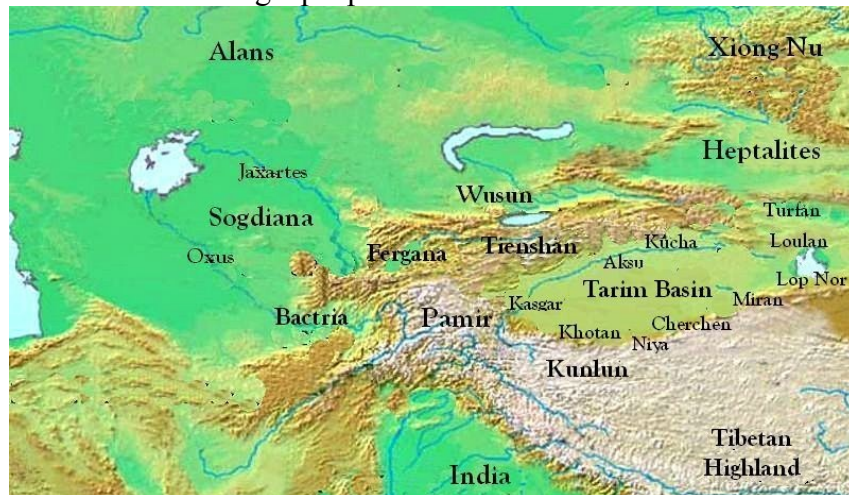
The area where the Modern City of Dun-Huang is presently located is in the Northern Part of the Chinese Province of Gansu where the Yuezhi lived for over Two Thousand Years.

Dun-Huang is not a standard Chinese city name, such as something with -zhou or -jing. It is a name, where the elements cannot be recognized from other cities. Several of the early explorers have offered their opinion what they think the name means. Sir Aurel Stein believed that the name Dun-Huang meant something like "blazing beacons", that is a signal that the enemy is coming. This does not sound likely. A city must have a good name; which merchant would choose to settle in a city with such a

name, with the prospect that the Barbarians would come every second years and steal his gold, burn his stock, and expose him to which was worse.

Place names are very persevering. Dun-Huang is probably an ancient name, given the city by those who lived there before the Huns and the Chinese came, as is often the case with place names. Danu is an ancient Indo-European word for river. We find it in the river names Danube, Dnieper, (originally called Danapris, Danastro or Danaper), Dniester, (Danastius, Danaprum or Danaster), Don (Tanais), Rhone (Rodanus), Po (Eridanos), and not least in the name of the Kingdom of Denmark. Therefore, a people or area that calls itself Dan, probably must have an Indo-European origin in a near or distant past, as the name is denoting a people who lived at a river.

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Proper Nouns Depicting People and Places Connected with Da Yuezhi's Westward Migration.

Alans: An Indo-European Tribe, living on the Eurasian Steppe for Millennia

Xiong-Nu: Probably, the Ancestors of the Turks who inhabited the Steppe from Times Immemorial.

Wusun: Caucasian, short-skulled Race, occupying the Ili Plain, North of the Tien Shan Mountains, around the Lake, now known as The Issyk Kul.

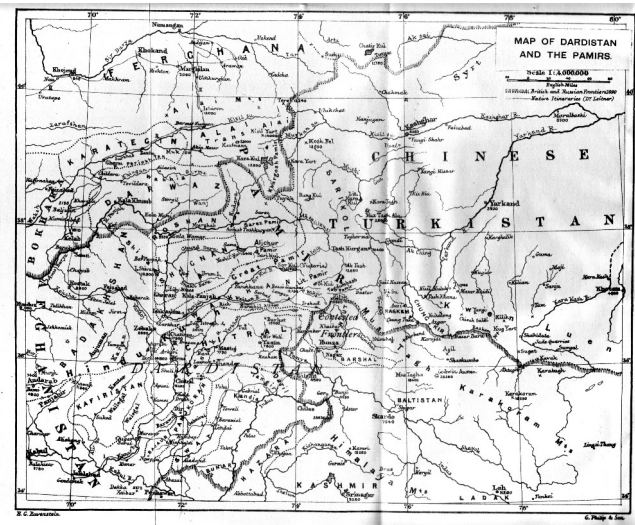
Heptalites: Also known as 'White Huns'. They later invaded and Ruled The Indian Sub-Continent. Some theorists have suggested that they were closely related to the Yuezhi. Their writing consisted of Runes, scratched on wooden sticks.

Bacteria: Founded by Alexander The Great during the conquest of the Persian Empire. Known to the Chinese as Da-Xia.

The Fergana Valley: Situated between the Jaxartes and Oxus Rivers (Now Called The Syr Darya and Amu Darya) lay Transoxiana. The Da Yuezhi settled here and founded the Sogdian Cities of Samarkand; Bukhara and others, called Sogdiana.

The Tarim Basin:

The Tianshan Mountains form the Northern Boundary of the Tarim Basin. These Mountains are as High as the European Alps. In the South the Kunlun Mountains, lead onto the Tibetan Highlands and on the West rise up the Majestic, Towering Pamir Mountains.



Map of Dardistan and The Pamirs:

In Ancient times the, now dried-up, Lop Nor Salt Lake lay on the Access Road to the Tarim Basin. The dreaded Taklamakan Desert lay in the middle of the Basin.



Basin of Lop Nur 90.25E, 40.10N, Desert of Lop, Kum Tagh and Astin Tagh.

By NASA. Image courtesy of Earth Sciences and Image Analysis Laboratory, NASA Johnson Space Center. Color adjusting of this image (using Adobe Photoshop 6.0): Michael Gaebler, 02. March 2006, own work, all rights released (Public domain). - NASA Mission: STS047, Roll-Frame 151 – 26, File name STS047-151-26.JPG. [1]. See also: [2]., Public Domain,
<https://commons.wikimedia.org/w/index.php?curid=625306>

China, Xinjiang, Desert Lop Nur. Satellite picture of the Basin of the formerly sea Lop Nur in the Desert of Lop. In the foreground Kuruktagh, in the background Kumtagh and Astintagh. A duststorm is blowing to the West over the Desert of Lop. Two lakes appear in a break in the clouds covering the

Plateau of Astintagh. Visible are elongated Ayakkum Hu Lake South-southwest of Lop Nur and small blue-green Gas Hu Lake.

Han Chinese Chroniclers have stated that there existed 40 to 50 ancient, independent Cities and Small States in the Tarim Basin. The Kingdom of Loulan was situated on the Banks of the Lop Nur. The term Loulan is the Chinese transcription of the native name Krorän and is used to refer to the City as well as the Kingdom. The Kingdom was renamed Shanshan after its King was assassinated by an Envoy of the Han Dynasty in 77 BCE;²⁸ however, the Town at the Northwestern corner of the Brackish Desert Lake Lop Nur retained the Name of Loulan.²⁹



Tarim Basin in the 3rd Century Showing The Kingdoms.

In the nearby, World Famed, Ancient Kingdom of Khotan, there are, still to be found, raw Jade Stones, once a Principle Trading item for the Yuezhi/ Tocharians, who sold them to the Chinese. It is said, in China, that the Country has had “Four Great Jades” since Ancient Times. This refers to the four kinds of Jade that were most commonly used and had the highest status in Chinese History. Of these The Principle one was: Hetian Jade (Nephrite) from Hetian (a.k.a. Hotan, Khotan), Xinjiang Province.

There is a 2,200 years old Chinese Classic Text, which is an invaluable adventurous account of Mythology, Geography and Culture, in and surrounding China and belonging to the Pre-Qin Dynasty, called the Shan Hai Jing.

²⁸ [Hulsewé 1979](#), p. 89.

²⁹ https://en.wikipedia.org/wiki/Loulan_Kingdom#cite_note-FOOTNOTEHulsew%C3%A9197989-3



Classic of Mountains and Seas Illustration of a Nine-Headed Phoenix (colored Qing Dynasty Edition).³⁰

This accounts describes a “White People with Long Hair” who lived beyond the Northwestern Border of China. Some representatives of the Yuezhi People went to the Shang Court, during the Era of King Tang (around 1000 BCE). They are also recorded in a list of Tribute Bearing outsiders, from Beidi, belonging to the Norther Minorities, in the, now lost, Book of Zhou (400-300BCE) during the Zhou Dynasty. In the Guanzi, an ancient Chinese political and philosophical text that is named for and traditionally attributed to the 7th Century BCE Philosopher and Statesman Guan Zhong, who served as Prime Minister to Duke Huan of Qi, it is inscribed that, “We should accept the Jade of the Yuzhi from the North.” All the Jade from the Shang and Zhou Dynasties originate from the Tarim Basin and were most probably supplied by Yuezhi Traders.³¹

The Tocharians had migrated into Desert Oasis-State and flourished along the Ancient Silk Route in Ancient Xinjiang before it’s Turkification and Sinification. Where and how they came to the Tarim Basin is a tale unto itself.

NOTE: A Word of Thanks to all the Countless Scholars and Publications that have carried on this work over time. Painfully recording the essence of History, sometimes when no records even existed. Taking their Research fro Relics, Artifacts, Remains and Archaeological Findings, Indeed a task of tremendous proportions. I have no excuse for omitting many references and freely admit to only gathering together the fruits of their labor. My aim is not to plagiarize as I have no intention of benefiting financially from the present series. I do acknowledge their Scholarship and am Gratified that I had a chance to review/ compile some of it. Mistakes in interpretation are entirely my own.

30 https://en.wikipedia.org/wiki/Classic_of_Mountains_and_Seas

31 <https://www.dandebate.dk/eng-dan11.htm>